

ABSTRACT OF THE DISCLOSURE

A reflector has a transparent film, an adhesive layer disposed on one surface of the transparent film, a groove structure provided on the other surface of the transparent film,
5 the groove structure having a plurality of grooves including optical path changing slopes aligned in a substantially constant direction at an inclination angle in a range of from 35 to 48 degrees with respect to a plane of the transparent film, a transparent cover film formed so as to cover an outer surface
10 of the groove structure, and a light diffusing type reflection layer disposed on an outer surface of the cover film. A lighting-external light double mode liquid-crystal display device comprising the above reflector and a transmission type liquid-crystal panel, wherein the reflector is bonded to a back
15 side (opposite to a viewing side) of the transmission type liquid-crystal panel through the adhesive layer of the reflector.